

REMARKS

Claims 64-95 have been cancelled without prejudice. Claims 18-25, 37-43, 46-63 and 96-107 have been allowed. Claim 23 has been amended to correct a lack of antecedent for "cells."

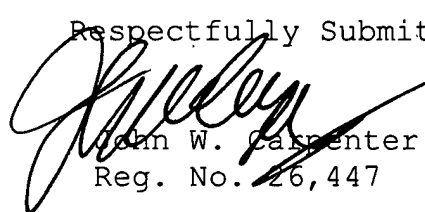
The paragraph at lines 19-21 on page 1 of the specification has been amended to reflect that Government support awarded by the National Institutes of Health is under Grant Nos. HL57810-03 and HL61204-02, instead of Grant No. HL67810-03.

REQUEST TO EXAMINER: The two accompanying PTO-1449 (Modified) Forms were previously submitted over two Invention Disclosure Statements. The PTO-1449 (Modified) Form having six(6) pages accompanied the April 22, 2003 Communication, along with the appropriate fee. The PTO-1449 (Modified) Form having one(1) page was submitted on June 4, 2003. At the time the Examiner made his findings that Claims 18-25, 37-43, 46-63 and 96-107 are allowable in the July 15, 2003 Office Action, the prior art listed on the two accompanying PTO-1449 (Modified) Forms were before the Examiner and were considered. The undersigned attorney never received a copy of the two accompanying PTO-1449 (Modified) Forms having the Examiner's initials, which indicate that the prior art listed was considered by the Examiner. WOULD THE EXAMINER PLEASE INSURE THAT THE NOTICE OF ALLOWANCE INCLUDES A COPY OF THE TWO ACCOMPANYING PTO-1449 (MODIFIED) FORMS HAVING THE EXAMINER'S INITIALS. The

undersigned attorney and Applicants thank the Examiner for his assistance in this matter.

All pending Claims are now in condition for allowance and an early notice of same is respectfully solicited.

Respectfully Submitted

A handwritten signature in cursive script, appearing to read "J. W. Carpenter", is written over the typed name and registration number. A long, thin horizontal line extends from the end of the signature across the right side of the page.

John W. Carpenter

Reg. No. 26,447

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph at lines 19-21 on page 1 with the following amended paragraph:

This invention was made with Government support under ~~Grant No. HL67810-03~~ Grant Nos. HL57810-03 and HL61204-02, awarded by the National Institutes of Health. The Government has certain rights in this invention.

AMENDMENTS TO THE CLAIMS:

Listing of Claims:

Claims 1-17 (canceled)

Claim 18 (previously presented and allowed)

A process of preparing a dehydrated composition comprising:

providing platelets selected from a mammalian species, the platelets being effectively loaded by fluid phase endocytosis with an oligosaccharide therein to preserve biological properties, wherein the loading includes incubating the platelets at a temperature from about 30° C to less than about 40° C with an oligosaccharide solution, the solution having up to about 50 mM oligosaccharide therein, the incubating sufficient to load oligosaccharide inside the platelets in an amount from about 10 mM to about 50 mM;

cooling the loaded platelets to below their freezing point; and

lyophilizing the cooled platelets.

Claim 19 (original and allowed)

The process as in claim 18 wherein the platelets are human platelets.

Claim 20 (original and allowed)

The process as in claim 18 wherein the incubating temperature is about 37° C.

Claim 21 (original and allowed)

The process as in claim 18 wherein the incubating is for at least about two hours.

Claim 22 (original and allowed)

The process as in claim 18 wherein the incubating is for at least about four hours.

Claim 23 (currently amended, but indicated allowed)

The process as in claim 18 wherein the ~~cells~~ platelets are human platelets, the incubating is between about 30° C and about 37° C, the solution has trehalose in an amount between about 20 mM and 50 mM, and the incubation is for at least about four hours.

Claim 24 (original and allowed)

The process as in claim 23 wherein the cooling is at a rate of about 2° C to 5° C per minute and is conducted in a drying buffer.

Claim 25 (original and allowed)

The process as in claim 18 wherein the lyophilizing is conducted at a temperature below about -32° C and removes about 95 weight percent of water.

Claims 26-36 (canceled)

Claim 37 (previously presented and allowed)

A process for preparing a dehydrated composition comprising:

loading internally by fluid phase endocytosis platelets with from about 10 mM to about 50 mM oligosaccharide to produce internally loaded platelets; cooling the internally loaded platelets to below their freezing point; and lyophilizing the cooled internally loaded platelets.

Claim 38 (previously presented and allowed)

The process of Claim 37 additionally comprising drying the internally loaded platelets prior to said cooling.

Claim 39 (previously presented and allowed)

The process of Claim 38 wherein said drying comprises suspending the internally loaded platelets in a drying solution containing a water replacing molecule.

Claim 40 (previously presented and allowed)

The process of Claim 39 wherein said drying solution comprises up to about 100 mM of an oligosaccharide.

Claim 41 (previously presented and allowed)

The process of Claim 37 wherein said cooling comprises cooling the internally loaded platelets to a temperature below about -32° C.

Claim 42 (previously presented and allowed)

The process of Claim 37 wherein said loading comprises incubating platelets at a temperature greater than about 25° C.

Claim 43 (previously presented and allowed)

The process of Claim 37 wherein said loading is without a fixative.

Claims 44-45 (canceled)

Claim 46 (previously presented and allowed)

The process of Claim 18 additionally comprising placing the platelets in a resting state prior to cooling.

Claim 47 (previously presented and allowed)

The process of Claim 18 additionally comprising preventing the loaded platelets from activating prior to cooling.

Claim 48 (previously presented and allowed)

A process for preparing a dehydrated composition comprising:

loading internally by fluid phase endocytosis platelets with a protectorate to produce internally loaded platelets; preventing the internally loaded platelets from activating; cooling the internally loaded platelets to below their freezing point; and lyophilizing the cooled internally loaded platelets.

Claim 49 (previously presented and allowed)

The process of Claim 48 wherein said preventing comprises placing the internally loaded platelets in a resting state.

Claim 50 (previously presented and allowed)

The process of Claim 48 wherein said protectorate comprises an oligosaccharide.

Claim 51 (previously presented and allowed)

The process of Claim 46 wherein said placing the platelets in a resting state comprises employing a channel blocking agent.

Claim 52 (previously presented and allowed)

The process of Claim 18 wherein said loading with an oligosaccharide includes increasing a loading efficiency of the oligosaccharide into the platelets by maintaining a concentration of the oligosaccharide in the oligosaccharide solution at less than about 50 mM.

Claim 53(previously presented and allowed)

The process of Claim 18 wherein said loading with an oligosaccharide includes loading with a loading efficiency ranging from about 45% to about 50 % for the oligosaccharide solution having an oligosaccharide concentration ranging from about 20 mM to about 30 mM.

Claim 54(previously presented and allowed)

The process of Claim 18 wherein said oligosaccharide comprises trehalose.

Claim 55(previously presented and allowed)

The process of Claim 52 wherein said oligosaccharide comprises trehalose.

Claim 56(previously presented and allowed)

The process of Claim 53 wherein said oligosaccharide comprises trehalose.

Claim 57(previously presented and allowed)

The process of Claim 18 wherein said loading with an oligosaccharide includes decreasing a loading efficiency of the oligosaccharide into the platelets by providing a concentration of the oligosaccharide in the oligosaccharide solution at greater than about 50 mM.

Claim 58(previously presented and allowed)

The process of Claim 57 herein said oligosaccharide comprises trehalose.

Claim 59(previously presented and allowed)

The process of Claim 18 wherein said loading is without a fixative.

Claim 60(previously presented and allowed)

The process of Claim 18 additionally comprising prehydrating the lyophilized cooled platelets.

Claim 61(previously presented and allowed)

The process of Claim 60 wherein said prehydrating comprises exposing the lyophilized cooled platelets to moisture saturated air.

Claim 62(previously presented and allowed)

The process of Claim 18 additionally comprising prehydrating the lyophilized cooled platelets until the water content of the lyophilized cooled platelets ranges from about 35 % by weight to about 50 % by weight.

Claim 63(previously presented and allowed)

The process of Claim 60 additionally comprising rehydrating the prehydrated lyophilized cooled platelets.

Claims 64-95 (canceled)

Claim 96(previously presented and allowed)

The process of Claim 37 wherein said loading with an oligosaccharide includes increasing a loading efficiency of the oligosaccharide into the platelets by maintaining a concentration of the oligosaccharide in the oligosaccharide solution at less than about 50 mM.

Claim 97(previously presented and allowed)

The process of Claim 37 wherein said loading with an oligosaccharide includes loading with a loading efficiency ranging from about 45% to about 50 % for the oligosaccharide solution having an oligosaccharide concentration ranging from about 20 mM to about 30 mM.

Claim 98(previously presented and allowed)

The process of Claim 37 wherein said oligosaccharide comprises trehalose.

Claim 99(previously presented and allowed)

The process of Claim 96 wherein said oligosaccharide comprises trehalose.

Claim 100(previously presented and allowed)

The process of Claim 97 wherein said oligosaccharide comprises trehalose.

Claim 101(previously presented and allowed)

The process of Claim 37 wherein said loading with an oligosaccharide includes decreasing a loading efficiency of the oligosaccharide into the platelets by providing a concentration of the oligosaccharide in the oligosaccharide solution at greater than about 50 mM.

Claim 102(previously presented and allowed)

The process of Claim 101 herein said oligosaccharide comprises trehalose.

Claim 103(previously presented and allowed)

The process of Claim 37 wherein said loading is without a fixative.

Claim 104(previously presented and allowed)

The process of Claim 37 additionally comprising prehydrating the lyophilized cooled platelets.

Claim 105 (previously presented and allowed)

The process of Claim 104 wherein said prehydrating comprises exposing the lyophilized cooled platelets to moisture saturated air.

Claim 106 (previously presented and allowed)

The process of Claim 37 additionally comprising prehydrating the lyophilized cooled platelets until the water content of the lyophilized cooled platelets ranges from about 35 % by weight to about 50 % by weight.

Claim 107 (previously presented and allowed)

The process of Claim 104 additionally comprising rehydrating the prehydrated lyophilized cooled platelets.